Amendments to the Claims

1-12. (cancelled)

13. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

wherein said cutting tool includes a gangsaw, and wherein said gang saw is pivotally movable relative to said transport conveyor to vary the position of said gang saw relative to a workpiece being carried by said transport conveyor past said gang saw and along said path, and wherein said apparatus further comprises means for moving said gang saw with said processing means controlling actuation of said means for moving said gang saw in accordance with said apparatus control instructions, and

wherein said pair of chipping heads and said gang saw are mounted on a support frame for simultaneous pivotable movement of said pair of chipping heads and said gang saw whereby said pair of chipping heads and said gang saw are both commonly pivotally moveable relative to said transport conveyor to vary the position of both said pair of chipping heads and said gang saw relative to the workpiece being carried by said transport conveyor and along said path.

14. (cancelled)

15. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said

sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

further comprising a pair of press rolls mounted with one press roll of said press rolls on either side of said path and between said pair of chipping heads and said sawing station,

each said press roll selectively laterally translatable on press roll translation means according to said apparatus control instructions so as to counter asymmetric lateral chipping forces of said pair of chipping heads asymmetrically operating on the workpiece whereby lateral translation of the workpiece relative to said transport conveyor is inhibited, and further comprising a pair of anvils rigidly mounted to said pair of press rolls with one anvil of said pair of anvils on either side of said path and between said pair of chipping heads and said pair of press rolls,

said pair of anvils laterally translatable simultaneously with said lateral translation of said pair of press rolls.

16. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

further comprising a pair of press rolls mounted with one press roll of said press rolls on either side of said path and between said pair of chipping heads and said cutting station,

each said press roll selectively laterally translatable on press roll translation means according to said apparatus control instructions so as to counter asymmetric lateral chipping forces of said pair of chipping heads asymmetrically operating on the workpiece whereby lateral translation of the workpiece relative to said transport conveyor is inhibited,

wherein each said press roll is also pivotally mounted on press roll pivot means for pivoting of each said press roll about an axis of rotation of a corresponding chipping head of said pair of chipping heads simultaneously with said lateral translation of each said press roll.

17. (original) The apparatus of claim 15 wherein each said press roll is also pivotally mounted on press roll pivot means for pivoting of each said press roll about an axis of

rotation of a corresponding chipping head of said pair of chipping heads simultaneously with said lateral translation of each said press roll,

and wherein each said anvil also simultaneously pivots about said axis of rotation.

18-25 (cancelled)

26. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

wherein said cutting station is a sawing station downstream of said chipping station, said sawing station includes a gang saw,

wherein said gang saw is pivotally movable relative to said transport conveyor to vary the position of said gang saw relative to the workpiece being carried by said transport conveyor past said gang saw and along said path, and wherein said apparatus further comprises means for moving said gang saw with said processing means controlling actuation of said means for moving said gang saw in accordance with said apparatus control instructions, and

wherein said pair of chipping heads and said gang saw are mounted on a support frame for simultaneous pivotable movement of said pair of chipping heads and said gang saw whereby said pair of chipping heads and said gang saw are both commonly pivotally moveable relative to said transport conveyor to vary the position of both said pair of chipping heads and said gang saw relative to the workpiece being carried by said transport conveyor and along said path.

27. (cancelled)

28. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable

inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

wherein said cutting station is a sawing station downstream of said chipping station, said sawing station includes a gang saw,

further comprising a pair of press rolls mounted with one press roll of said press rolls on either side of said path and between said pair of chipping heads and said sawing station,

each said press roll selectively laterally translatable on press roll translation means according to said apparatus control instructions so as to counter asymmetric lateral chipping forces of said pair of chipping heads asymmetrically operating on the workpiece whereby lateral translation of the workpiece relative to said transport conveyor is inhibited, and

further comprising a pair of anvils rigidly mounted to said pair of press rolls with one anvil of said pair of anvils on either side of said path and between said pair of chipping heads and said pair of press rolls,

said pair of anvils laterally translatable simultaneously with said lateral translation of said pair of press rolls.

29. (previously amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said

sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

wherein said cutting station is a sawing station downstream of said chipping station, said sawing station includes a gang saw,

further comprising a pair of press rolls mounted with one press roll of said press rolls on either side of said path and between said pair of chipping heads and said sawing station,

each said press roll selectively laterally translatable on press roll translation means according to said apparatus control instructions so as to counter asymmetric lateral chipping forces of said pair of chipping heads asymmetrically operating on the workpiece whereby lateral translation of the workpiece relative to said transport conveyor is inhibited, and

wherein each said press roll is also pivotally mounted on press roll pivot means for pivoting of each said press roll about an axis of rotation of a corresponding chipping head of said pair of chipping heads simultaneously with said lateral translation of each said press roll.

30. (previously added) The apparatus of claim 28 wherein each said press roll is also pivotally mounted on press roll pivot means for pivoting of each said press roll about an axis of rotation of a corresponding chipping head of said pair of chipping heads simultaneously with said lateral translation of each said press roll,

and wherein each said anvil also simultaneously pivots about said axis of rotation.

31. (previously amended) The apparatus of claim 26 wherein said gang saw includes a saw arbor and wherein said pair of chipping heads and said gang saw are movable linearly across said path and are pivotally mounted so as to be rotationally movable relative to said path.

32. (cancelled)

33. (currently amended) An apparatus for sawing a workpiece into parts of desired dimensions where the workpiece has non-uniform original dimensions comprising:

a transport conveyor for moving the workpiece along a path through a plurality of stations;

said plurality of stations including a workpiece scanning station including sensing means for sensing the dimensions of the workpiece and processing means associated with said sensing means for analyzing the sensed dimensions provided by said sensing means and providing an apparatus control instruction;

a chipping station downstream of said scanning station including a pair of chipping heads mounted in laterally opposed relation on either side of said path on lateral translation means for selectively controllable independent lateral translation of said chipping heads relative to said transport conveyor;

a cutting station including a cutting tool movable relative to said transport conveyor to vary the position of said cutting tool relative to a workpiece being carried by said transport conveyor past said cutting tool and along said path;

means for independently actuating said lateral translation means with said processing means controlling actuation of said means for independently actuating said lateral translation means in accordance with said apparatus control instructions;

means for moving said cutting tool relative to said path with said processing means controlling actuation of said means for moving said cutting tool in accordance with said apparatus control instruction,

said cutting tool being rotationally movable about a pivot axis relative to said path,

wherein each chipping head of said pair of chipping heads is independently and actively laterally translatable so that at least one of said chipping heads is laterally translatable inwardly and outwardly relative to a workpiece when between said pair of chipping heads so as to recover a side board from a portion of the workpiece having a diameter larger than adjacent portions of the workpiece,

wherein said cutting station is a sawing station downstream of said chipping station, and wherein said sawing station includes a gang saw,

wherein said gang saw is pivotally movable relative to said transport conveyor to vary the position of said gang saw relative to the workpiece being carried by said transport conveyor past said gang saw and along said path, and wherein said apparatus further comprises means for moving said gang saw with said processing means controlling actuation of said means for moving said gang saw in accordance with said apparatus control instructions, and

~~wherein said pair of chipping heads, and~~ wherein said pair of chipping heads and said cutting ~~device~~ tool are separate for movement of said pair of chipping heads independently of said cutting ~~device~~ tool whereby said pair of chipping heads and said cutting ~~device~~ tool are independently moveable relative to said transport conveyor to independently vary the position of both said pair of chipping heads and said cutting ~~device~~ tool relative to the workpiece being carried by said transport conveyor and along said path.,

wherein said cutting ~~device~~ tool includes ~~a~~ said gang saw and wherein said pair of chipping heads and said gang saw are movable linearly across said path and are pivotally mounted so as to be rotationally movable relative to a base and said path.

34. (cancelled)